CLAIMS:

1. A method of processing analog color signals, the method comprising:

analog preprocessing (2, 3) sensor output signals to obtain analog preprocessed signals that cause a reduced amount of digital quantization errors;

converting (5) the analog preprocessed signals into digital signals;

reconstructing (7) a first basic color signal (R), a second basic color signal (G), and a third basic color signal (B) from the digital signals; and

correcting (9) the basic color signals to obtain standardized signals, the correcting step comprising multiplication of a three color signal matrix containing the first, second and third basic color signals (R , G , B) by a correction matrix containing coefficients that depend on the analog preprocessing step (2, 3).

2. A method according to claim 1, wherein the analog preprocessing step includes a white balance adjustment.

3. A method according to claim 2, wherein the coefficients of the correction matrix depend on the analog preprocessing step in that correction matrix coefficients a_{xy} are replaced by coefficients b_{xy} with

$$
\begin{aligned}
b_{11} &= a_{11} \\
b_{12} &= a_{12} \times awbR \\
b_{13} &= a_{13} \\
b_{21} &= a_{21} / awbR \\
b_{22} &= a_{22} \\
b_{23} &= a_{23} / awbB \\
b_{31} &= a_{31} \\
b_{32} &= a_{32} \times awbB \\
b_{33} &= a_{33}
\end{aligned}
\qquad (6)
$$

wherein $awbR$ equals a total contribution of Red divided by a total contribution of Green and $awbB$ equals a total contribution of Blue divided by a total contribution of Green

wherein the total contributions of Red, Green and Blue are determined from the standardized signals.

4. A method according to claim 1, wherein the sensor output signals comprise first, second and third analog color signals R_a, G_a and B_a, and wherein said analog preprocessing step includes respectively multiplying the color signals by

cR

cG

cB

where $cR = \sum R$ if $\sum R > 1$, else $cR = 1$;

where $cG = \sum G$ if $\sum G > 1$ else $cG = 1$;

where $cB = \sum B$ if $\sum B > 1$ else $cB = 1$, with

$\sum R = a_{11} + a_{12} + a_{13}$

$\sum G = a_{21} + a_{22} + a_{23}$

$\sum B = a_{31} + a_{32} + a_{33}$

with a_{xy} being the coefficients the correction matrix would have without the analog preprocessing step, and wherein the coefficients a_{xy} of the correction matrix are replaced by coefficients b_{xy} with

$b_{xy} = a_{xy}/cR$ for $x = 1,2,3$ and $y = 1$;

$b_{xy} = a_{xy}/cG$ for $x = 1,2,3$ and $y = 2$;

$b_{xy} = a_{xy}/cB$ for $x = 1,2,3$ and $y = 3$.

5. A device for processing analog color signals, the device comprising:

means for analog preprocessing (2, 3) sensor output signals to obtain analog preprocessed signals that cause a reduced amount of digital quantization errors;

means for converting (5) the analog preprocessed signals into digital signals;

means for reconstructing (7) a first basic color signal (R), a second basic color signal (G), and a third basic color signal (B) from the digital signals; and

means for correcting (9) the basic color signals to obtain standardized signals, the correcting means comprising means for multiplying a three color signal matrix containing

the first, second and third basic color signals (R , G , B) by a correction matrix containing coefficients that depend on the analog preprocessing means (2, 3).

6. A device according to claim 5, wherein the analog preprocessing means (3) includes means (3) for carrying out a white balance adjustment.

7. A method according to claim 6, wherein the coefficients of the correction matrix depend on the analog preprocessing step in that correction matrix coefficients a_{xy} are replaced by coefficients b_{xy} with

$$
\begin{aligned}
b_{11} &= a_{11} \\
b_{12} &= a_{12} \times awbR \\
b_{13} &= a_{13} \\
b_{21} &= a_{21} / awbR \\
b_{22} &= a_{22} \\
b_{23} &= a_{23} / awbB \\
b_{31} &= a_{31} \\
b_{32} &= a_{32} \times awbB \\
b_{33} &= a_{33}
\end{aligned}
\qquad (6)
$$

wherein $awbR$ equals a total contribution of Red divided by a total contribution of Green and $awbB$ equals a total contribution of Blue divided by a total contribution of Green wherein the total contributions of Red, Green and Blue are determined from the standardized signals.

8. A device according to claim 5, wherein the sensor output signals comprise first, second and third analog color signals R_a , G_a and B_a , and wherein said analog preprocessing means (2) includes means (2) for respectively multiplying the color signals by

cR

cG

cB

where $cR = \sum R$ if $\sum R > 1$, else $cR = 1$;

where $cG = \sum G$ if $\sum G > 1$ else $cG = 1$;

where $cB = \sum B$ if $\sum B > 1$ else $cB = 1$, with

$$\sum R = a_{11} + a_{12} + a_{13}$$
$$\sum G = a_{21} + a_{22} + a_{23}$$
$$\sum B = a_{31} + a_{32} + a_{33}$$

with a_{xy} being the coefficients the correction matrix would have without the analog preprocessing step, and wherein the coefficients a_{xy} of the correction matrix are replaced by coefficients b_{xy} with

$b_{xy} = a_{xy}/cR$ for $x = 1,2,3$ and $y = 1$;

$b_{xy} = a_{xy}/cG$ for $x = 1,2,3$ and $y = 2$;

$b_{xy} = a_{xy}/cB$ for $x = 1,2,3$ and $y = 3$.

9. A color camera comprising:
a sensor for generating sensor output signals; and
a device as claimed in claim 5.